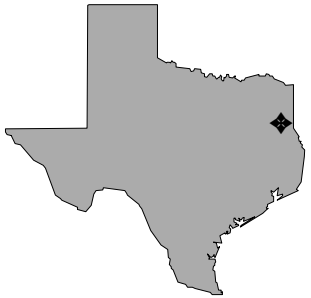
Longhorn Army Ammunition Plant NPL

Size: 8,493 acres
Mission: Loaded, assembled, and packed pyrotechnic and illuminating signal munitions
HRS Score: 39.83; placed on NPL in August 1990
IAG Status: IAG signed in October 1991
Contaminants: Explosives, heavy metals, and VOCs
Media Affected: Groundwater, surface water, sediment, and soil
Funding to Date: $64.5 million
Estimated Cost to Completion (Completion Year): $67.4 million (FY2006)
Final Remedy in Place or Response Complete Date for All Sites: FY2006



Karnack, Texas

Restoration Background

Longhorn Army Ammunition Plant (LHAAP) manufactured pyrotechnic and illuminating signal munitions and solid-propellant rocket motors. Environmental studies identified 50 sites, including storage areas, landfills, open burning grounds, industrial areas, burial pits, sumps, and wastewater treatment plants. Eighteen of these sites are eligible for the Installation Restoration Program (IRP). The installation divided the sites into five groups.

Follow-up studies at the installation identified volatile organic compounds (VOCs), heavy metals, and explosives in on-site groundwater, surface water, and soil. The studies also confirmed two sources of VOC contamination beneath the Active Burning Ground Site.

A FY84 Remedial Action (RA) included design and construction of a landfill cap for an unlined evaporation pond formerly known as the Rocket Motor Washout Pond. In FY91, the installation began a Remedial Investigation and Feasibility Study (RI/FS) at 13 sites. Phase I of the RI was completed in FY93. The Army completed Phase II investigations at 11 sites that required additional fieldwork in FY95.

In FY94, the Army also completed a pilot-scale study for groundwater extraction and treatment to remove trichloroethene (TCE) and methylene chloride at Burning Ground No. 3, which includes the capped, unlined evaporation pond. During FY95, the installation completed three Records of Decision (RODs), one for Burning Ground No. 3, another for two landfills, and a third for two sites at which no further action was necessary.

The installation's technical review committee (TRC) meets quarterly. The commander attempted to form a Restoration Advisory Board (RAB), but interest was not sufficient to sustain the effort. The Interagency Agreement (IAG) for the installation requires that both state and federal regulatory agencies review primary documents to ensure compliance. In FY96, construction began on the Burning Ground Treatment Facility and the caps for Landfills 12 and 16. The installation completed the Phase II RI. It also began evaluating alternatives to pumping and treating the groundwater at Site 16. A RA began for 84 wastewater sumps.

In FY97, the installation compiled data to complete the Group 1 RI and initiated Phase III of the RI for Group 2. It also completed construction of the Burning Ground Treatment Facility and began treatment of groundwater and soil. A Site Inspection report for Group 5 recommended no further action at two of the four sites. In addition, the Army initiated four Interim Actions and/or Removal Actions. The TRC began including Audubon Society members at monthly managers meetings.

FY98 Restoration Progress

The installation completed a no further action ROD for Group 1 sites (1, 11, 27, and 54). The installation also completed treatment of 30,000 cubic yards of source material and continued to collect and treat groundwater at the Burning Ground. The Army completed the Landfill 12 cap. The Interim Remedial Action cap for Landfill 16 was delayed a month due to weather. Field studies were initiated for Groups 2 and 4. The TRC requested an application for Technical Assistance for Public Participation funding to determine the effects of on-post contamination in surface waters entering Caddo Lake.

Plan of Action

- Complete capping of Landfill 16 in FY99
- Continue the collection and treatment of groundwater from the Burning Ground in FY99
- Complete fieldwork for Group 2 and Group 4 RI/FSs in FY99
- Complete accelerated RI/FS for Site 16 in FY99

FY99 Funding by Phase and Relative Risk